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ABSTRACT

This paper discusses the concept of literacy and proposes several theses with regard to the difficulty experienced by youngsters from disadvantaged backgrounds in acquiring literacy in present-day school environments. It recommends studies to explore the funding of programs designed to improve schools as educational organizations, rather than programs that are targeted to the individual student. Compensatory programs should be developed that: (1) do not put the blame for school failure on the student; (2) help children from poor homes achieve literacy; (3) promote adequate levels of achievement in literacy; and (4) make the school the appropriate (and perhaps the essential) unit for improving instruction in reading and writing. In support of the paper's arguments, a view of demographic trends in students, homes, teachers, and schools is given and policy implications for compensatory reading programs are considered. There is also a brief discussion of a framework for developing a curriculum of literacy. Current curricula for "regular" and "compensatory" students are described. A summary and tentative recommendations for federal, state and local policies conclude the paper. A list of references is appended. (PS)

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CURRICULUM AND INSTRUCTION: READING

by

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An Unusual Strategy

Conference papers follow a predictable model. A problem is introduced and expounded. The pertinent literature is reviewed, with or without the assistance of an organizing framework. Generalizations are drawn and recommendations are proposed.

Perhaps because of the press of time, perhaps because the task is both ambiguous and inherently complicated, perhaps because of personal limitations, I find myself unable to follow this time-honored tradition in the present instance. Rather than leave respondents waiting with frustration to learn what I plan to present at the June conference, I will use this draft to share thoughts in midstream.

The draft does have a structure of sorts. I will begin with confusion--the history of the request for the paper. Next is the background that will be brought to bear in my analysis--something old, something new, etc. This section is brief, listing the sources but not expanding on them. My "conclusions" come afterward, too early perhaps, but may as well be clear about my hypotheses and biases. The present draft also ends in confusion--the argument that links the background to the conclusions is not yet fully formed...

The Request

A Phone Call

After New Year's Day 1986 but before Super Bowl Sunday (dull), I received a call from the east coast asking me to review the literature on the effects of compensatory reading programs. The idea was to expand on a chapter on reading research that Pris Drum and I recently completed for the Handbook of Research on Teaching. What were the policy implications from this chapter? What did it have to say about curriculum and instruction for disadvantaged students? What about individualized instruction in small groups and the instructional materials associated with this approach? What practices seemed most effective for students in compensatory programs?

My Place On The Agenda

The agenda for the meeting arrived a couple of weeks later. Five topics:

STUDENTS
PROGRAM AND STAFFING
PARENT INVOLVEMENT
CURRICULUM AND INSTRUCTION
COMPARISON OF REGULAR AND COMPENSATORY PROGRAMS

My review falls under Curriculum and Instruction (C&I)—reading, the curriculum area most often served by compensatory programs (75 percent, which is surprisingly small to me). Other topics under this heading include mathematics, thinking, instruction, and grouping.

The program entails some degree of redundancy. I will necessarily have to consider the students in compensatory education (comp ed) programs (their language differs in some respects from middle-class children), instructional and grouping practices, and, above all, the place of thinking in the development of reading.

Fine-tuning My Topic

If construed as broadly as possible, I could write a book on this field. In an attachment provided by Research and Evaluation Associates, I was asked to consider reading as a subject matter. This matter will be a focal point of my comments. What reading is, how reading is taught (covered by others under instruction?), how students become readers (another focus for me)—these are also on the list. A final question on the Research and Evaluation Associates list for me has to do with age of onset of reading—this topic is covered in the Handbook chapter, and will not be further elaborated in this draft. Personally, I don't think it is a critical issue with regard to compensatory programs.

And so I enter the task with some degree of uncertainty. On the one hand, I can chose to emphasize the nature of reading, the reading process, and the acquisition of literacy—and the specific factors that might be related to the slow and uncertain progress experienced by children from disadvantaged backgrounds when they move through standard reading programs (and most compensatory programs do little to change this state of affairs).

On the other hand, a broader perspective might also encompass systemic and linguistic-cultural factors that might be the source of problems. In other words, I might take a narrow curriculum view or a broad systems approach.

A Definition of Reading

Another source of confusion is the construct of reading. On the one hand, I might concentrate on the most basic skills--phonics as typically taught falls under this rubric, as do the behavioral objectives that comprise many scope-and-sequence charts. A variation more compatible to contemporary views of reading would place greater emphasis on comprehension.

One can go beyond these definitions to a view of the reading curriculum as a formal system for thinking and communication, playing a role in virtually every other area of the curriculum. This way of thinking leads to a conception of an integrated language arts curriculum, in which reading, writing, speaking, and thinking all play a role. My goal is to cast the issues in this broader framework. I do not believe that we can afford for "real literacy" to be denied to youngsters from disadvantaged backgrounds. Incidentally, I will try to be explicit about the place of writing in literacy programs; it is somewhat surprising that this area is not on the Research and Evaluation Associates list of topics.

Alternative (?) Designs

One final comment about the guidance from Research and Evaluation Associates. The title of this conference is "Effects of Alternative Designs..." I'm not quite sure of the meaning of "alternative" in this context. Not since the Follow Through experiments has there been much effort to compare different programs for effectiveness. We can ask about the "alternatives" provided students in compensatory programs from those in regular programs; these comparisons are so inherently confounded as to render interpretation difficult if not impossible. In any event, I will not worry about the meaning of "alternative" beyond this passing comment.

The Background for This Review

Range of Sources

In this section I will lay out the sources from which I draw my conclusions and on which I will base my arguments. The primary basis is in a collection of review papers that I have authored over the past several years. Some of these focus on empirical research, but the blend includes a fair amount of work that is better described as scholarship. I have a strong theoretical bent, which colors my approach to problems.

In addition to formal papers, I will refer to documents from a number of court cases in which I have served as expert witness. "Evidence" has a different tone in court appearances

than on the pages of a scholarly document, but seems appropriate for the present purpose.

I will also call on practical experience. For the past several years much of my time has been spent in the creation and implementation of a staff-development program designed to help schools become more effective in promoting literacy. While the program is not limited to schools serving disadvantaged communities, many of the target schools fit that description. This work has brought me into contact with many of the "realities" of the conference, both through staff work and through classroom teaching. I have taught students in compensatory programs from the barrios of downtown San Jose to the burned-out ruins of the South Bronx, from kindergartners to high school students. Over reliance on anecdote can be dangerous, I realize; so can too great dependency on statistics.

Specific Documents

This section will provide a brief characterization of the documents of primary importance to my review. The respondents may or may not want to read all of them. In this section I will give a synopsis; in later sections I will refer to segments of specific documents that have a bearing on a particular issue; sort of cut-and-paste without actual cutting and pasting.

"Research on Teaching Reading" (1986), recently completed with Priscilla Drum for the Handbook of Research on Teaching, will be a primary reference for me in any analyses of the present status of theoretical and empirical findings in the field of reading. I will also refer to other chapters in this volume where appropriate, especially as regards writings and writing instruction.

The HB (Handbook) chapter, as I may refer to it, is organized as follows. After a brief introduction, page 806 begins a section in which I present a conception of the curriculum of reading (and, implicitly, of writing). The presentation takes oral language as the base, and then portrays literacy as the acquisition of skill in the formal use of language for thinking, for problem-solving, and for communicating. This theme, which will reappear throughout the review, seems to me of fundamental importance in understanding problems in the acquisition of reading by many children in today's schools, and especially those from disadvantaged backgrounds. Writing is an important part of the technology of formal language usage, but is not the only nor even the major consideration--thus goes the argument in the HB chapter.

Reading is seen as comprising four major facets:

DECODING (phonics and spelling, inter alia)
VOCABULARY (word meaning)
"BOTTOM-UP" COMPREHENSION (sentences and paragraphs)
"TOP-DOWN" COMPREHENSION (complete chapters and texts)

Beginning on p. 812, each of these four segments of the reading curriculum is expanded, with a presentation then of research bearing on selected "hot topics." Some of the research is "process" oriented (e.g., how are words recognized by the skilled reader), some is "learning" oriented (e.g., what is learned during phonics instruction, rules or patterns), and some is "individual-difference" oriented (e.g., what is the difference between good and poor readers in what is learned from phonics instruction).

The chapter ends rather abruptly, with little effort to draw broad conclusions about "what it all means." The field of research on reading instruction is clearly active, but there is a piecemeal character that makes the drawing of broad conclusions somewhat hazardous. Our hope was that a more coherent conceptualization of the curriculum of reading would allow researchers to begin to cast their efforts in a more meaningful framework.

Teaching Reading in Compensatory Classes, coedited with Priscilla Drum (1979), reported the results of a four-year study by Educational Testing Service (ETS) that surveyed practices in compensatory classes. The survey findings were organized along several dimensions:

COMMUNITIES AND SCHOOLS
PROFILE OF THE CHILDREN
TEACHER CHARACTERISTICS
ORGANIZATION FOR INSTRUCTION
INSTRUCTIONAL PROCEDURES
MATERIALS

Pris and I wrote four chapters for the volume, in two of which we tried to bring together the diverse threads from the various surveys. In the present draft, I will call on these chapters from time to time. One might argue that the findings are out of date, and hence do not apply. While some matters have changed over the decade (e.g., the involvement of communities), I suspect that the prevailing practices today are much as they were several years ago. If evidence to the contrary exists, I have not been able to locate it.

Human Diversity: Implications for Schools (Calfee, 1983c), was written a few years ago for Ed Gordon at Yale. The National Institute of Education (NIE) had asked him to bring

together a number of scholars to reflect on education and diversity in American schools. Ed asked me to help in thinking through the broader implication of the problem, based on my own analyses of the problem, but also using the other papers in the collection. The collection of essays was published a few years ago, but seems to have fallen through the cracks. As I reread my chapter, it seemed that many of the points have a bearing on the topic of the conference. While the chapter bears my name as author, the framing of the issues and many of the sources reflect long conversations with Ed.

The chapter begins with a strong claim:

> The single most important dimension of psychological, social, and educational diversity among human beings is probably marked by the distribution of wealth, and the power that wealth represents.

I'm sorry now that I included "probably." The present conference, it seems to me, revolves around this proposition, and around the question of the role of the schools in alleviating and/or amplifying the differences in home background that children bring with them on entry to school.

There are six sections to the chapter:

I. A THEORETICAL FRAMEWORK FOR HUMAN DIVERSITY
II. HOME AND COMMUNITY AS A SOURCE OF DIVERSITY
III. THE SCHOOL AS A SOURCE OF DIVERSITY
IV. THE INDIVIDUAL AS A SOURCE OF DIVERSITY
V. IMPLICATIONS FOR PRACTICE, RESEARCH, AND POLICY
VI. ROLES OF VARIOUS DECISION-MAKERS

Again, I will point to specific segments of the chapter where appropriate. As I write these words, I am referring to galleys--not sure I ever got a copy of the book. If all goes well, the respondents will have access to a clean copy. The chapter was written near the beginning of the Reagan administration; one of the main changes in the past few years is a reversal of a trend--the movement of wealth from the richer to the middle- and lower-class levels of society.

Other Resources

In the final version of this draft, I will give credit to the numerous other sources on which I rely for background. For the present, let me mention a few items at the top of the pile.

Becoming a Nation of Readers, a popular report from The Commission on Reading (1985) that was prepared under auspices of The Center for the Study of Reading, must be considered by anyone with an interest in the status of literacy in American

schools. I will at the appropriate time review this report, and give my reflections on its meaning for the present conference.

The Handbook of Reading Research, completed just recently, would seem to be an obvious resource. It turns out not to be. The needs of children from outside the middle-class mainstream received comment here and there, but in no concerted form. The chapter on assessment by Johnston seems to me to have the most to offer to the present discussion.

In similar vein, Placing Children in Special Education: A Strategy for Equity, though dealing with a different population than is of concern to this conference, is a rich resource. This document, in its analysis of the procedures used to identify and "place" children who are not succeeding in the regular classroom, provides some interesting models for a similar analysis of compensatory reading programs.

The determination of the actual curriculum for a student is ultimately in the hands of teachers. Even in the most prescriptive programs (e.g., DISTAR), the individual teacher can arrange subtle alterations. The child at a drill-and-practice computer terminal can, with a few words from the teacher-monitor, see the routine of the task in a different light. Green's (1983) chapter on "Excellence, equity, and equality" in the Handbook of Teaching and Policy has provided one of the more interesting points of departure on this issue for me.

Program effects, both specific and broad, are necessarily of importance in dealing with the present topic. The recent NAEP (National Assessment of Educational Progress, 1985, 1986) reports on reading and writing will be considered. In addition to my own perusal of these documents, I have asked for comments by several colleagues who are knowledgeable. In addition, several books on effective schools have been useful, including Rhine's (1981a) review of Follow Through findings, and Brookover's (Brookover et al., 1982) summary of how to create an effective school (a compilation of current wisdom and prevailing practice).

And finally (for now), we conducted an ERIC search. The key words included reading, compensatory and disadvantaged. The search turned up 27749, 2178, and 15025 items for each term, respectively. There were 268 items for the combination of the first two, 150 items for the first and last, and 118 for the triple. Relatively slim pickings, and the quality was universally low. I have yet to learn much from an ERIC search, and the present experience is no exception.

And So

You now have (I hope) some idea of the kind of information I have assembled in my head. I could at this point proceed through these sources in classical "review the literature" fashion. Instead, I am going to present my conclusions. These are based only in part on the references listed above. I suspect that practical experience in the schools with students, teachers, and administrators hold equal weight in my mind to the contributions of researchers. In any event, after presenting my thoughts, I will then try to back them up. For the skeptical reader, pretend that I am formulating hypotheses to be tested against the data--in fact, my intention is stronger.

The Conclusions

Perhaps it is too early in the paper to have made up my mind, but I do not start from ground zero. So I may as well get to the point. My view of literacy for graduates of our public schools does not begin with a concept of basic skills or "minimum competency." Given that the school has the student for the better part of the time during 13 years of life, I think it feasible to expect high levels of literacy to be attainable. If the student is not in school during this time, or if the student is unable to function for whatever reasons (lack of sleep or food, or emotional distress due to home conditions), then this expectation needs to be tempered, to be sure. In this section, I will begin by sharing in more detail my conception of literacy, after which I will propose several theses with regard to the difficulty experienced by youngsters from disadvantaged backgrounds in acquiring literacy in present-day school environments.

The Literate Person

The view of literacy entailed in this aspiration is quite broad but also distinctive. The graduate should be able to decode with facility and to the point of automaticity (i.e., without spending mental energy on the process). He or she should be in command of a large vocabulary; more significantly, he or she should have available a range of strategies for gaining some idea of the meaning of novel words--by use of context, by analysis of the morphological structure of a word, by resort to a dictionary if necessary.

In the area of comprehension, the sentence is the starting point. Grammar has not been "in" for some time. My recommendation is not a matter of correct usage but of understanding. An anecdote will serve to make the point. Some time ago, I was approached by a technical writer for a local pharmaceutical

company. Her problem was to write instructions for a new product, a kit that would allow a women to determine optimal time during the reproductive cycle for reproduction--the goal being to help the individual to conceive. Following Federal regulations, the writer had revised the original instructions to conform to an eighth-grade level of readability. Readability formulas depend on familiar vocabulary and/or sentence length. The vocabulary could not be simplified, and so the sentences were shortened, largely by dividing complex sentences into short stand-alone sentences. Thus, the preceding sentence, which comprises 21 words, would be rewritten as:

> The vocabulary could not be simplified. The sentences were shortened. Complex sentences were divided into short stand-alone sentences.

In this example, the revised version may be as readable or more so than the original. But in the pharmaceutical instructions, many of the connectives found in complex sentences were left out (e.g., the "so" in the second sentence). When the revised instructions were presented to staff members at the company, they found the simplified version almost impossible to comprehend--the linkages that helped establish cause-effect and other relations were gone.

The point is that there are limits to our ability to "simplify" a message. Some matters are inherently complex, and more rather than less in modern society. The literate person can parse or unpack a well-written but complex sentence or paragraph to get at the underlying relations. In the absence of this ability, it may be impossible to communicate with the individual.

Another example of the point that I am making: minimum competency tests for high school graduation often include an objective related to reading want ads. The idea, I suppose, is that poor kids are going to spend lots of time trying to find jobs; we need to be sure that they know how to look for them. (One might be more concerned about helping the student keep a job, but that's another matter.) Want ads are an interesting example of modern writing. Sometimes they are relatively straightforward:

> RESTAURANT. Round Table Pizza hiring for shift supervisors. Apply at 549 Oceana Blvd., Pacifica.

In other instances, the reader is challenged by both vocabulary and grammar, and must in effect "create" the document:

> RESTAURANT. Catering Spanish spkg w/strong food bkgrnd for Asst Mgr position. Apply 100 Bush, 2nd floor.

I cannot imagine instruction to help a person "read" the second example that does not begin with a grounding in the grammatical models from which the synoptic account is constructed. The writer had something like the following in mind:

> RESTAURANT. A catering business wants to hire an Assistant Manager. The person must speak Spanish, and should have a strong background in the food business.

I was able to construct the expanded version partly from my knowledge of the world, but also from my knowledge of grammatical structure.

The constructive character of comprehension is even more significant in the area of text comprehension. Understanding a text is more than the sum of the words and the sentences. The reader, in approaching a text of more than a few sentences, must impose an organization on the collection of words and sentences in advance of completing the text. The capable reader makes informed guesses about the likely character of the text, uses these hunches to arrange incoming information, and adjusts the hypothesis along the way. In the absence of such active construction, the recollection of the material becomes a mental junkyard, in which much is lost or cannot be retrieved, and where little makes sense in any event.

The kindergartner can understand simple narratives, and can manage certain forms of topical writing (concrete descriptions). The kindergartner does not know that he or she possesses a "narrative schema," however, and is not capable of handling the more formal genre of exposition--descriptive, sequential, and argumentative styles of writing. Narration is a naturally occurring style of text--we are surrounded by story forms from earliest days, whether in the recounting of "how the day went" or "what did you just do" to fairy tales, situation comedies, and so on. Narration, which builds on recurring patterns of human experience, may also be a "comfortable cognition" for other reasons.

Exposition is another matter (Orasanu, 1986). Expository patterns occur less frequently as part of day-to-day experience for most of us. Newspaper writing is one of the few exceptions. The forms that do occur tend to be "acquired tastes." A considerable amount of time in graduate school is spent learning the style of the research report--most citizens are not familiar with this format, and would not willingly subject themselves to the effort required to become familiar with it.

Exposition also tends to be a more complex style. Virtually every story is built of the same basic elements: characters, setting, the "big" problem, the plot, and the final resolution. There is no such communality for expositions. A

chapter on energy in a science book, a newspaper editorial, a first-aid chart on CPR, and instructions for completing the 1040A--each of these is likely to have a rather unique structural makeup. Each is likely to be created from more than a single "building block." The examples allow me to make another point--comprehension of expository forms is important for citizens at all socioeconomic levels of the society. Indeed, young men and women entering the armed forces often encounter some of the most complex and personally significant pieces of expository writing when they enter instruction in the machines of modern warfare.

Beyond "Reading"

In the previous section, I have implicitly focused on reading as we commonly understand the term. Let me suggest that literacy for our society goes beyond the inherently "receptive" perspective of taking print and turning it into something that is understood. The literate person can "send" as well as "receive." That is, the individual can rely on the same skills and knowledge to communicate with others--he or she can spell, can select words appropriate to a setting, can fashion sentences and paragraphs, and can create text structures appropriate for a given message. Indeed, it is by the ability to perform these tasks that receptive capabilities are confirmed.

Of course, speaking can serve the same purpose. That is, the teacher can determine that a student has understood an exposition by asking for a recapitulation. The young student who is still in the process of mastering the motor skills required to put pencil to paper can be asked to "compose" orally. The medium is not the message--the mark of the literate person is only partly the ability to handle print. Equally (or perhaps more) important is the style of handling language. The literate person has a distinctive set of tools for working with language in all its forms; this individual "listens" differently than other people.

Several months ago I had occasion to visit a prestigious private school. It was in every way the complement of the compensatory programs that are the focus of the present conference. During my visit, I asked if I might have some students read for me; I was interested in their skills in expository comprehension. Two of the best readers--young women from the seventh grade--were "volunteered." I asked each to read a social studies passage for me. The point of the passage was that a poor country had to spend money to develop goods for export if it was to afford imports. Brazil (the example) had lots of coconuts. The market for coconuts is limited, but by building factories to extract the oil and process the fibrous husks, an export market was created.

Both of the students had serious problems with the text. The first youngster looked up midway and commented, "I'm not going to remember much of this." She didn't. The second girl responded by giving back the topic sentence from each paragraph--a more effective strategy in some respects (at least she had a strategy), but considerable distance from reconstructing what I suspect the author had in mind.

The point is that even in the most advantaged settings in today's schools, we seem at some remove from providing an adequate grounding in literacy as defined in this section. If such is the case in the best conditions, what is happening in compensatory programs?

One final observation. The discussion of literacy may imply that natural language is "bad" or inadequate. The intention is by no means to devalue the natural use of language in natural settings. The college prof who lectures an acquaintance in the congenial atmosphere of the local pub is behaving inappropriately. Rather, the argument is that success in the modern world requires the individual to have competence in the full range of language usage, and be knowledgeable about effective choice of how to apply this knowledge in particular settings.

Conclusion #1: The Kid's Not The Fault

My first conclusion may seem to run contrary to both research and to practice. From the Coleman report onward (and certainly one can find supportive research before Coleman), a prevailing theme is that the child from a disadvantaged home is much less likely to benefit from schooling than his or her more advantaged peer (Coleman et al., 1966).

The facts are on the one hand inarguable. Statistically, home background contributes much more to the prediction of performance on standardized tests than do any of the factors that are typically used to differentiate schools. To be sure, the "experiments" are seldom neat and clean. In America, poverty is often a community matter, so that children from a poor neighborhood are assembled in a common school. Desegregation to achieve racial equality has upset this pattern in some locations, but often with resulting displacement of middle-class clients. Even in those settings in which students from diverse neighborhoods attend a common school, one can find many instances of resegregation at the classroom level on the basis of both race and socioeconomic class. Teachers are not assigned at random to schools and classes in this country. While it is not easy to support the thesis that poor teachers wind up with poor students, neither is it apparent that our best teachers are asked to help students with greater needs.

If any event, the statistical evidence shows that children from low-income families are at risk in our schools. Talk with teachers, and you'll discover that they can give you the reason for the statistics. In ways that are now well documented, students from disadvantaged backgrounds come to school with a range of experience and a style of language that is a poor match to the expectations of the middle-class school environment. Differences that are noticeable in kindergarten are amplified during the years of schooling. One may argue that the differences are an artifact of the metrics but personal experience with kindergartners from diverse backgrounds versus high schoolers suggests to me that the gap separating the groups is indeed greater by the end of the educational experience. The home has not prepared the student for school, and it does not support the student during schooling. In my experience, it is not unusual to encounter comments like "These kids just don't know enough to handle the material;" "What can I do with a child who is so far behind;" "The parents don't really care how the child does in school."

For all of these reasons, and others that might be mentioned (e.g., genetic heritage), a strong and prevailing opinion is that the child from a disadvantaged environment is a problem, and one that the school will be hard to deal with. Indeed, despite substantial and continuing efforts, schools in this country and elsewhere in the world have not been able to help these youngsters succeed. Head Start, other early education programs, Follow Through, various compensatory education programs, Sesame Street and the Electric Company—billions of dollars and some of the best thinking about how and when to help at-risk youngsters, and relatively little to show for the effort.

To be sure, my portrayal is a bit too gloomy. In general, recent reviews of the effectiveness of compensatory education programs suggests that they have a slight positive effect on student importance. The early education literature now documents a number of rather striking success stories. The "effective schools" research has identified conditions under which a school can promote better-than-expected performance on standardized tests. In all of these examples, the investment is rather large (one can argue that the long-range benefits are worth it) and the return disappointingly small (statistically significant, but no "whoppers").

These positive examples, however, do not change the basic presupposition that I am questioning—that the "kid is the problem." The starting assumption is that something special needs to be done, either quantitatively or qualitatively: an earlier start, more time in school, similar smaller class size, individualized attention, a more structured program, and so on. Nowhere do I find a question that perhaps the prevailing

practices are flawed, and that youngsters from a broad range of backgrounds might benefit from an educational opportunity of a different character than now exists in most schools.

My hypothesis, to put it most directly, is that the present methods for promoting literacy are in fact off the mark, that they pose a challenge to the more able students, but are virtually pathological for the child from a lower-class home. In making my case, I do not need to assume that such children are a good match to the school; they often are not. Nor, for that matter, must I assume that "the kid is not the problem." It is possible that, under some ideal that I might imagine, we would find that disadvantaged youngsters continue to have trouble acquiring literacy.

The primary reason that I believe in the potential of youngsters from disadvantaged backgrounds is personal experience in settings where these students succeed, where students who "don't know anything" have demonstrated a broad range of knowledge and ability, and have shown themselves able to grasp abstract concepts when given a chance. Expectation is a slippery concept, I realize, and the research literature is not what we might want. Nonetheless, it does appear to me that in many instances a teacher's expectation (or lack thereof) about a student's potential leads to instructional decisions that can be to the detriment of the student's success. Changing expectation will not change student performance directly--there is no magic—but it might well change instructional decisions...

Personal experience is a weak reed, to be sure. One can point to support in the literature—the studies of Barr (1974-1975) and of Allington (1980) in the HB chapter typify the kind of research that I would lean on. In both of these examples, the researchers were rather careful to include details about instructional practice, and they assessed the results of instruction with a broad range of outcomes. I will return to these points later in the draft.

In at least three court cases in which I have participated, I was able to muster evidence showing a negative relation between instructional practices designed to help low-income children and student performance. None of these cases was decided in favor of the side that I represented, but in none of the cases did the judge decide that my testimony was wrong, simply irrelevant.

In Tattnall County (Georgia), high school sophomores who failed to meet a mandated level of performance on a standardized test were assigned to an individualized remedial reading program. They remained in the program until they met the mandate, or until leaving school. Those who failed to meet the

mandate were denied a diploma, hence the case. The district had been careful to match the objectives of the remedial program to the demands of the test; all seemed in order. Yet, we were able to show that students were significantly more likely to move out of the remedial program if they managed to take a non-remedial course; to put it another way, the special program designed to help the students was less effective than the regular English and math programs. A suggestion that school practice, not student background, was a factor in determining success.

In Debra P. (Phase II), Florida had to demonstrate that they had taught students what they need to know to pass a minimum competency test for high school graduation. Students at risk were overwhelmingly minority and (I suspect) from low-income backgrounds. The state showed that lots of teachers reported they were teaching the skills needed for success sometime during the student's time in the system. I was able to show from these data that students were more likely to succeed if they were in a district where teachers taught the skills earlier rather than later in the student's schooling, and where the instruction was intensive. In particular, students were more likely to pass the test at the beginning of high school. Remedial instruction in high school following failure was less effective. This pattern held across variation in the socioeconomic level of the district. Again, an indication that school practice mattered over and above student background.

Finally, in a South Carolina case that is still under judicial review, students were placed in tracked classrooms from first grade onward on the basis of ability as assessed by total score on a standardized achievement test. The special programs for the lower tracks were not well defined, but the district's claim was that by narrowing the range of ability, they allowed teachers to deal more effectively with students needs. In this case, we examined the change in performance of students on the "cusp"—a few percentiles one way or the other and the individual student would have been placed in a different classroom. Suppose Johnny and Richard scored at the 30th and 35th percentile, respectively. Johnny was placed in the bottom track (often Chapter 1 supported, hence the case) and Richard in the middle track. The percentile values are sufficiently close that one would not want to claim that the two students were markedly different in reading ability. One might predict, if the programs were equally effective, that both students would remain at roughly the same percentile at year's end. Ideally, a compensatory model might lead to the prediction that Johnny, the recipient of special (though in this instance undefined) resources, might outgain Richard. The results were clearcut. Clusters of students who differed negligibly at the beginning of the year were markedly different

at the end of the year--and to the advantage of students placed in the upper tracks. Differences of a few percentiles became differences of 10-20 points. Again, an indication that the program can make a difference, quite apart from measured student ability.

One last "personal experience" note. In the South Bronx a few years ago, I taught a GATE class--youngsters retained in elementary school because they had not passed muster on a standardized test. They were in a remedial compensatory class. The day was gray and dull, and so I conducted a lesson on "weather." Over a twenty-minute session, the dozen or so youngsters performed what could only be considered a miracle. They could neither read nor think, they had no experience relevant to the process of schooling--or so I was informed. Yet, within a few minutes the board was full of the words that occurred to them in response to the topic--words like cold and winter, to be sure, but also hurricane and volcano. I asked about the last-mentioned word--why in response to weather? The student had seen a telecast on a volcano that had erupted and changed the weather in the region. Not bad for someone who didn't know anything... At the end, we reviewed what had been learned, how it might be linked to other concepts, and I asked the students to "read" (i.e., decode) the words. They may have had trouble with standardized tests, but they were not stupid and they knew a lot about the world. One can only wonder about the forces in that school that prevented the teacher from tapping and enhancing the potential. The kids didn't seem to be the problem...

Conclusion #2: The School Doesn't Have The Choice Of Failure

In America, as in most countries throughout the world, the schools serve a selectional function. Some societal roles require educated people, either because of the demands of the task or because it is considered "proper." Some individuals are easier than others to educate. Youngsters from middle- and upper-class homes come to school with a head start; they have been prepared by the family to move into those positions appropriate to people with education. Even if the school is less than fully effective as an instructional institution, these youngsters are likely to become educated. In this fashion, the school preserves social stratification.

Some countries are quite explicit in this mechanism; several nations in Europe provide differentiated schooling that depends on parent's ability to pay. The United States has a long tradition of equal access to education through the public schools; to be sure, the access has been more equal for some than for others. Recent decades have seen major arguments about the meaning of equal access, and the issue remains very much unresolved at present. The rhetoric, at least, is that

none of our youngsters should be denied an adequate education because of race, sex, or other class demarcations, including (one hopes) wealth. The rhetoric is increasingly fulfilled for race and sex, but less so for socioeconomic status. Recent calls for higher standards are seen by some as likely to lead to greater inequity--taking the form of increased dropout rates for minorities and other youngsters at risk in school.

In this "conclusion," I want to suggest that the quest for high standards and for equity are converging in this country. My early characterization of literacy fits the argument. The issue can be put quite simply: we are reaching the point in demographics where we do not have enough "easy to educate" youngsters to continue a selection system. California is an interesting test case--in 1986-87, more kindergartners will be from minority groups than from the White "majority." Not all of these minorities are from poor families, to be sure, but neither are all of the White-majority youngsters from well-off families, to the contrary. Increasingly the school population comprises youngsters at the extremes--the only child from a middle- or upper-class family (often but not always intact), and the youngster from a large lower-class family (often but not always with a single mother).

The present system of schooling does reasonably well on the surface with the first student, but has problems with the second student--and there are many more of the latter than the former. Thus far, I have reiterated a point that is typically a concern of those who would promote equity; we should ensure equal access to education for all students. But a declining (now reasonably stable) birth rate coupled with the changing demographics leads to a different concern: HUMAN CAPITAL. To again put the matter most bluntly, there are not enough of the first type of child to handle work-force needs. Until MacDonald's and Burger King's are completely automated, franchises need bodies who are moderately educated. More to the point is the replacement of moderate and high-level technicians and bureaucrats (in the best sense of the word). All of these individuals must be educated; they must be literate in the sense that I have sketched earlier. Minimum competency will not do.

Hodgkinson (1986) has estimated that by the year 2000, if present trends continue, every two adults will be supporting two other adults. As he puts it, of every four adults one worker will support another person on welfare, and another worker will provide for a retiree. A few decades ago, each non-worker was supported by more than a dozen workers; the situation facing us changes that ratio by more than an order of magnitude.

And so my conclusion that the schools cannot afford "failure." That is, they can no longer operate as a selectional system, certifying middle-class child and "dropping out" the lower-class youngster. The cost for the society will be too great. This conclusion is related to my first thesis, to be sure. That is, I am assuming that conditions exist that would permit our public schools to become effective with all youngsters, so that a large proportion of the "welfare" cases would become productive members of society.

I am intrigued with the convergence of concerns, and see it as a potentially powerful force to provide the stimulus and resources needed for school improvement. For the stereotypical "businessman" the goal is to have an assured supply of well educated (i.e., highly literate) individuals for the work force. For the stereotypical "egalitarian," the goal is to ensure that access to quality education is not dependent on student background. We are reaching the point where these two concerns are becoming one.

Conclusion #3: We Should Not Teach Students From Disadvantaged Homes As If They Can't Learn

The reading curriculum for students from middle- and upper-class homes is not that great. Analyses of basal texts show that they shortchange the development of higher-level skills for dealing with text. Narratives (some of high quality, others humdrum) are the staple. Exposition is seldom presented and even less often introduced as such. Rather the student is told to expect "factual" information, with the emphasis on the content instead of the text structure. Vocabulary is presented in rote fashion: "Here are the eight words for today's lesson. Write them on the board, ask students to look them up in the glossary and use them in a sentence. A worksheet is available for further practice." Decoding is presented in the form of an endless list of specific objectives, none related to one another. "SQU" gets billing with the long-short vowel contrast. The primary emphasis is on Anglo-Saxon spellings; by the time the student reaches the third grade, at which point romance words and those from other origins begin to play a primary role, phonics is all over unless you are assigned to remediation for some reason—then it's back to the basics.

One other feature of the regular program should be mentioned—the separation of the various facets of literacy. Reading is taught during one segment of the elementary school day. The books and procedures for reading are used during that time. "Language arts," which is often a placeholder for the mechanics of grammar, is taught during a different part of the school day, from a different book and with different procedures. Language arts may include writing, but in many in-

stances writing (which is beginning to come back) is considered a different topic, with different rubrics and goals. Spelling is likewise given its own brief time during the school day; many of the programs I have seen depend almost entirely on worksheets; students copy words rather than spelling them. In any event, it is rare to see an integrated program of language development and reading. (A brief aside--I recently received a number of Japanese textbooks. In Japan, "language" is taught from a single book from the earliest grades, with all the facets covered in coherent fashion.)

Lots of problems, but nothing compared to the curriculum for the student from a disadvantaged background. The underlying assumption seems to be that the student has few relevant experiences and cannot think. In consequence, the student is carefully taken through very detailed and piecemeal sequences of unconnected objectives. The worksheet plays an even greater role in reading instruction than for "regular" students. The implicit model of learning appears to be founded on practice: PRACTICE MAKES PERMANENT.

The student is more likely to encounter a program in which decoding is emphasized to the neglect of comprehension. The regular student is encouraged to make informed guesses when reading aloud; the compensatory student is asked to "sound out" the word (either may be appropriate, depending on the context, but a steady diet of one to the exclusion of the other does not make sense to me). The regular student may be asked on occasion to justify an answer; this step occurs rarely with children from disadvantaged backgrounds. The middle-class student receives feedback during reading that is balanced between positive support and requests for correction. Feedback is contingent on performance. The lower-class student is more likely to receive noncontingent positive feedback--"You're doing great."

Perhaps most importantly, pacing is likely to be different for regular and compensatory students. Barr and Dreeben's (1983) work demonstrates the effect when teachers, for whatever reasons, slow down the pace for a group of students. In their study, students who were equated for entry ability were either "pressed" or slowed for additional practice. The effects were dramatic, favoring students who were moved ahead even though they may not have completely mastered an objective. To be sure, a student may be confounded when the teacher moves ahead without providing the necessary support. But I have encountered numerous situations in which children trudge through the same materials again and again, striving in vain to "master" an objective that they have failed to complete on an end-of-unit test, falling steadily behind their peers--and these are seldom children from more advantaged homes. The parents object if the child is not at the expected place in the series.

My conclusion, then, is that compensatory programs might work more effectively if we dealt with all youngsters as though they could handle the job. To be sure, we would need to rid the curriculum of the silliness that now infects it. Many students are confused by poorly designed worksheets; Jean Osborne's studies at Illinois provide grist for this mill. The middle-class child has relevant experience--parents have bought silly worksheets at the local five-and-dime and helped the student discover test-taking strategies. In addition, they are available at home to help the youngster over idiosyncratic hurdles.

But let us assume that the curriculum was more straightforward, that the tasks were rendered in more explicit fashion, and that students were provided with adequate instruction in the tasks. My hypothesis is that the amount of differentiation between children from lower- and middle-class backgrounds might be relatively small.

Another anecdote... Some time back I was told by a first-grade teacher that her students (largely Hispanic and poor) could not handle comprehension. The important thing to teach in first grade was phonics skills, and she had barely enough time for that. But even if she did try to teach them abstractions like character and plot, they would not be able to grasp the concepts. I asked to have a chance to try for myself. The situation was not ideal--late afternoon was the only time the students didn't have something important to do, and she insisted that I deal with the entire class. The first lesson was about a chickie and a duckling--both wander about after hatching, with the chickie doing everything the duckling does. The climax comes when the duckling goes for a swim. Not great shakes as literature, but the structure of the tale is clear--two characters, a small number of episodes, a climactic moment, and a final resolution. After reading the story aloud, I asked the youngsters to analyze the piece--who were the characters (they understood the concept) and what was the plot (they had not heard the term but could handle the idea). We even created some parallel stories, and later during the week the students wrote their first stories ever. A week later, we applied the same techniques to the analysis of a third-grade story. The children remembered the terms and the techniques, and the lesson was quite successful. I am not unsympathetic with the teacher. After teaching for two decades in a middle-class school, she was suddenly transferred to a ghetto school. The techniques that worked well before are no longer effective, and it is understandable if she is frustrated; and a class of thirty youngsters did not make matters any better. Nonetheless, I must return to the proposition: we should approach youngsters from poor homes as though they were ready and able to learn, much as anyone else.

Conclusion #4: Changing Present Organizational Patterns May Make It Easier To Succeed

This section will be brief, because I suspect that other reviewers will cover the same territory. Tracking, pullout programs, reliance on paraprofessionals to monitor remedial learning--all of these procedures represent organizational solutions that make the school more viable for teachers and administrators, but they may serve as barriers to progress in improving the curriculum of literacy for youngsters at risk. If coherence is hard to find in the regular program, how much more so when the student must cope with other unrelated activities. No matter how well intended, no matter the providing of individual attention, no matter the immediate feedback from fifteen minutes on the computer, from the student's perspective it must be confusing.

The hypothesized detrimental effects of multiple and unrelated programs are least likely to appear on outcome measures that demand little in the way of sustained and reflective thought. Standardized tests, in consequence, may be insensitive to this problem, and might even show a gain if pullout programs provide additional practice on test-taking skills.

My experiences in staff development for improved literacy lead me to a conclusion that is shared by others--we need to explore the feasibility and effectiveness of funding programs designed to improve schools as educational organizations, rather than programs that are targeted to the individual student. If children were widgets rather than people, targeting the individual might be a workable strategy. But children are people, and the well-being of the school is determined by its effectiveness as a social institution; the well-being of the individual requires the well-being of the entire organization.

Pullout programs are only one form of a more common procedure--the grouping of students based on ability. Other participants will be addressing this issue. A couple of points must suffice. First, grouping at the classroom and within-class levels is more common in reading than in almost any other subject matter area. In consequence, it will be difficult to consider the effectiveness of literacy instruction without returning to this topic. Second, I have written on this topic elsewhere and have rendered testimony in court hearings. I have yet to see clear instances of positive effects from ability grouping (studies of gifted programs in the 30s and 40s are an apparent exception, but the appropriate control groups--middle-ability students provided an accelerated and enriched program--were not included in the designs with which I am

familiar), and detrimental effects for lower-ability students are more typical than not.

THE ARGUMENT

Introduction

This section of the draft, an addendum of sorts, is designed to provide supporting information for the argument advanced in the previous sections. In addition, it contains specific references to relevant work of my own as well as others.

The Curriculum

My primary task in this report is to review the curriculum of reading, and to consider the role of the school in general and compensatory reading programs in particular in institutions for promoting literacy for children from low-income homes. Literacy rather than reading--a point to be reinforced in this argument is the notion that the literate person has acquired an approach to language that transcends the medium of print. The literate person, whether in reading or writing, speaking or listening (taking notes), is sensitive to features of the language that are invisible to the person who is illiterate.

This definition of literacy, and its manifestation as a major element of the curriculum of today's school, is quite different from the operational definition reflected in the present curriculum materials. The meaning of literacy, let me suggest, is by no means a constant, but depends on societal needs in a particular time and place. It no longer suffices in the United States to possess "minimum skills" of literacy, whatever the term means.

In the first portion of this section, I will discuss a framework for thinking about literacy in modern life. The basic concepts were presented earlier in the draft. Here I will give theoretical justification for the framework, and will point to a number of pertinent references. Briefly, the framework begins with curricular concepts--ideas about the formal use of language for thinking and for communication, and the application of the natural-formal contrast to the major domains of language (decoding, vocabulary, and comprehension). The conceptual framework is represented in the schools in three distinctive forms--curriculum materials, instructional methods, and assessment techniques. I will have a bit to say about the "translation" in each of these areas.

Individual Differences

The other major part of this puzzle falls under the heading of student differences. Not all youngsters respond equally well to the demands of schooling. It is possible to predict rather accurately how a student will achieve based on academic skill and knowledge on entry to school. In turn, one of the best predictors of entry performance is the socio-economic level of the family.

Although this equation is well established, the basic proposition underlying compensatory programs is that the relation can be altered. Children from poverty backgrounds, given the proper application of additional resources, may reach higher levels of school achievement than would otherwise be predicted. Given the demographics for the next decade, there is reason for concern--the proportion of "hard to educate" students is increasing; the availability of talented teachers is decreasing; and financial resources for education are unlikely to increase to a level adequate to allow any marginal improvement in programs.

Later in this section I will review the conceptual literature on the nature and meaning of the basic equation, and will present my analysis of the response of school programs (regular and compensatory) to the presence of individual differences. A number of fundamental issues continue to elude our grasp, and my analysis will not provide certain answers--deficit versus difference models, and starting rate versus learning rate, to name just two issues that I want to raise.

The Conclusions

Finally, let me reiterate for purposes of this overview the four conclusions that the argument is intended to support:

> It is a mistake in designing compensatory programs to fix the locus of school failure in the student. In the draft, I phrased the statement more colorfully as "The kid's not the problem." A couple of comments: (a) analysis of existing programs has led a number of observers to suspect that many programs do assume the contrary, viz., that children from low-income families have inherent difficulty in dealing with the demands of schooling; and (b) my statement might be better viewed as a hypothesis rather than a conclusion--while evidence can be mounted in support of this proposition, I doubt that it is a provable conclusion.

Schools must be more effective during the future in helping children from poor homes achieve literacy. This conclusion springs both from an analysis of the curriculum of literacy, of the needs of modern society, and of the demands on the individual in today's world. The main point of the present paper is the importance of construing literacy in a more realistic form for all children; a "cheap" version for poor youngsters is an unworkable strategy.

It is possible to design a compensatory program of curriculum and instruction that promotes adequate levels of achievement in literacy. Implicit in this statement is a criticism—I don't think that the programs presently in place realize the full potential of either students or teachers.

The school is the appropriate (and perhaps the essential) unit for improving instruction in reading and writing. One might argue that I should focus my attention for the problem assigned to me on "curriculum" matters, with allowance for student characteristics or teacher activities—that I have no business sticking my nose into organizational matters. My experience over the last few years suggests otherwise. As noted above, literacy is not a constant. It is defined within a social framework, and I think that a strong argument can be put forward that, for children from disadvantaged backgrounds, the school's definition of literacy for these children is vitally important in determining both curriculum and instruction. Textbooks, scope-and-sequence charts, tests, the involvement of parents, even financial resources all pale in comparison. Again, the reader might want to consider this conclusion as a working hypothesis rather than a well-supported conclusion.

Overview

This section is divided into six segments. The first is the Introduction, now concluded. The second section is on students and homes, and on teachers and schools. The purpose is to give a demographic sketch of present and future trends, and to consider policy implications for "compensatory reading programs." Next comes a brief section laying out a framework for thinking about the curriculum of literacy; I will begin with some general remarks about curriculum, and then lay forth some notions specific to literacy. This section is brief because it relies on previously published documents. The next two sections describe the program of reading instruction in the elementary grades for "regular" students and then for "compensatory" students. The last section includes a summary and

tentative recommendations for policy--Federal, state, and local.

Students and Homes: Schools and Teachers

Literacy is at the core of schooling in the United States. The youngster who reaches third grade lacking in the ability to handle text is in bad shape. Some will make it--Nelson Rockefeller was dyslexic, but he did all right. Most will not --they will do poorly in school, they will dislike schooling, they are more likely to drop out, and their success in the society after schooling (by those criteria that are typically associated with success) will be limited. These generalizations are so widely established and believed that I will not attempt to document the assertions.

Students and Homes

Some students come to literacy more readily than others. Many youngsters read before they enter school; I know of no evidence that these children suffer from having gained such foreknowledge--to the contrary. These youngsters are generally from middle- and upper-class homes, whose parents follow the recommendations of the Commission on Reading (1985) that they read to their children before they enter school.

Some students find more support for literacy in the home after they enter school--books are available, homework is solicited and encouraged, dinner-table discussion focuses on the events of the day including the reading lesson. Again, parents with higher levels of education are more likely to provide such supportive environments.

What is the present situation, and what does the future portend? McLaughlin and Shields (1986) portray the present in vivid terms:

> [Of] today's school children,
> 14% are illegitimate
> 40% will be living with one parent by age 18
> 30% are latchkey children
> 20% live in poverty
> 15% speak a language other than English
> 15% have physical or mental handicaps
> 10% have poorly educated parents [a minimal criterion] (p. V-37, cited from Hodgkinson, 1986, p. 6)

Survey data and reports in the popular press suggest that the future is not rosy. A few examples:

Education Week, April 16, 1986, "Rethinking the elementary years" by Reeves. The Census Bureau reports [probably from data biased toward too rosy a picture] that of every 100 children born today, 12 will be born out of wedlock, 40 will be born to parents who divorce before the child reaches 18, and seven will be born to parents one of who leaves or dies before the child's maturity. The United States is the only industrialized nation in which a quarter of all infants and preschoolers live in poverty, the only industrialized nation without some kind of family support policy (Hewlett, 1986).

Newsweek, June 2, 1986, "Hands across America." The report is that real income for those in the lowest 40 percent of citizens has dropped 8.5 percent since 1970; the poor are getting poorer, according to this criterion.

Peninsula Times Tribune (Palo Alto, CA), May 1, 1986, "Big switch in family makeup." A state study shows "a spectacular decline in the relative importance of the traditional family unit, couples with children." The drop was from 54 percent nuclear families in 1950 to 28 percent in 1980. This shift is not limited to the poor.

EDCAL, May 26, 1986, "How U.S. reacts to an alarming dropout rate." More than one in four U.S. students drops out before graduation (to be sure, some of these complete GEDs or the like), and the rate has been increasing one percent per year for the last decade (after consistent declines for a century. The dropout rates are related to minority status (40-50 percent for minorities), which may be a proxy for socioeconomic status.

Center for Continuing Study of the California Economy, Spring, 1986. Projections are that the proportion of non-Hispanic Whites in California will drop from 67 percent in 1980 to 57 percent in 1995, largely reflecting an increase in Hispanic population. [In the 1987 kindergarten cohort in California, the majority "non-Hispanic Whites" will be a minority for the first time in this century.]

These data, which are not necessarily most pertinent but were readily available in documents crossing my field of vision, suggest that the proportion of elementary students for whom reading is "easy" are likely to decline in the next decade or so. These reports may seem "bad news." It will certainly require a change in the present prediction equation if the

society (California in particular and the nation in general) is to have the educated bodies needed to do its business.

On the other hand, it may be well to remember the "good news." In 1900, the dropout rate was 90 percent; as late as 1940, only one child in four completed high school. In 1940, White men averaged almost nine years of education; Black men averaged only five. By 1980, the gap between Black and White had closed to one and a half years of schooling--room for improvement, but movement [at least through 1980] in a desirable direction, given the goals of compensatory education (Smith & Welch, 1986). Concomitant with the changes in education, Black men moved from a situation where in 1940 they earned on average only 43 percent as much as Whites to a relative position of 76 percent in 1980.

Teachers and Schools

In my spare time I serve as a trustee for the Palo Alto Unified School District. It is in this context that I feel compelled to remark that if advice were money, one of the problems facing today's schools would be alleviated. Money does not solve problems, but a lack of money can cause problems.

The point is, schools have been getting a lot of advice in recent years: the spate of reform reports, Nation at Risk, and so on--lots of complaints, and scores of recommendations. Of late the spotlight has been on teachers. The ones that we have may not be all that good, but things are likely to get worse--we may not have enough bodies to handle one of the primary functions of schooling, which is care-taking.

The Holmes (Holmes Group, 1986) report from education deans, the Commons report from California, and the Carnegie (Carnegie Task Force on Teaching as a Profession, 1986) report --all focus on the teaching profession. The perspectives differ, but the issues seem to converge on a few problems: (a) those individuals who now handle classrooms will be gone within a relatively few years (the U.S. Department of Education estimates a need for 250,000 new elementary teachers between now and 1993, Reeves, 1983); (b) attracting replacements will be difficult; (c) those who enter the profession are not likely to be the "best and brightest;" (d) steps must be taken to limit entry into the profession to those who are not minimally (or adequately) qualified; and (e) existing procedures for professional development are flawed and need to be replaced by other options.

The present report is not the place to review and critique these reports. I will only comment that I concur in the conclusion that we face a serious problem, but I am not

convinced that the array of recommendations provides a coherent solution. Indeed, the recommendations are internally inconsistent in some instances, and seem unworkable in other cases. The issue of preservice preparation, for instance, is greatly confused today, especially for elementary teachers (Commission on Reading, 1985, p. 107ff). They are expected to be informed generalists in a variety of curriculum domains, to be expert in pedagogy (younger children do not benefit from a diet of lectures and demonstrations), and to be sensitive to the developmental and social-emotional characteristics of children--all this based on a general undergraduate education, if some of the recommendations are followed. Reading and language are of fundamental importance in the elementary grades; preservice preparation generally requires only a handful of courses, more concerned with management than with conceptualization.

As part of the preparation for this conference, I conducted a review of the college textbooks used for inservice training in reading--a half dozen of the texts that appear "respectable" and that I judge to be "bestsellers." We looked for several features. First, what did the textbook say about the psychology of reading, the linguistic basis for literacy, the rhetorical foundations of literacy, and the characteristics of the English language (in particular, the influence of the historical peculiarities of the language on the morphology and the spelling system). We found virtually no systematic treatment for any of these domains in any of the textbooks. We also checked the table of contents and the index for references to the particular needs of children from disadvantaged backgrounds, or for reference to compensatory reading methods. We found no coverage of any of these topics.

The bottom line, from my perspective, is that we need to find ways to make the most efficient use of the intellectual talent of those individuals who do choose to enter the profession, and to search out models that are effective in promoting the professional development of novice teachers at the local school site. In short, the improvement of compensatory programs is not likely to be grounded in the sudden arrival on the scene of a new cadre of "hotshots"--to the contrary.

The Curriculum of Literacy

The Concept of Curriculum

In "Cognitive Psychology and Educational Practice" (CP/EP) (Calfee, 1981), I review the findings from cognitive psychology over the last quarter-century, and consider the implications for educational practice. Herewith are some pertinent highlights, plus a few extensions.

The first half of CP/EP covers a wide array of findings, but the major conclusions are two-fold. First, the basic architecture of the mind is quite simple, comprising a number of relatively distinctive functional entities, two of which—long-term and short-term-memory, are especially important to the academic role of school. Long-term memory permits the storage of infinite amounts of experience. This memory spans a gamut from incidental memories to well organized schema; from "multiple-choice" memories to "essay tests." Short-term memory, the locus of attentive concentration, is sharply limited in capacity--no more than a handful of distinctive elements may be mentally juggled at any one point in time. The elements may be more or less informative; the statistician familiar with the algebraic equation for the normal probability function may handle this material as a single "chunk," while a novice is overwhelmed by the number of distinct elements in the equation.

The second conclusion from the review springs from the first--coherence is essential to effective use of our mental resources. Simon (1981) speaks of nearly decomposable processes, I have presented a theory of separable processes (Calfee & Floyd, 1976) or of "carving the turkey" (Calfee, 1982), and Peters and Waterman (1982) urge that we K.I.S.S.—KEEP IT SIMPLE, STUPID. The act of carving may seem all too commonplace; in fact, it is an example of an act of expertise. Green (1983) reminds us of the character and value of expertise in the academic domain in Gardnerian (1984) prose:

> ...there is such a thing as "the house of intellect." [Excuse the shift in metaphor.] The criteria for entrance into it and for status within it are not grounded in distinctions of class, ethnicity, sex, or religious conviction. They are grounded rather in criteria, always debatable, always open to amendment, that express the qualities of mind, the acquired disciplines of thought and reflection that constitute the stigmata of those we call well-educated... Excellence of education should be measured never by the satisfaction of our basic social needs. Its excellence resides always in its capacity to arouse and cultivate those capabilities for memory, action, and social discipline that are ours as human beings. (pp. 338-339)

The upshot of this analysis is that efficient thought depends upon coherent mental representations. If a school subject matter is to be readily grasped, the curriculum designer must meet the challenge of dividing an otherwise complex domain into a small number of distinctive and relatively independent parts, which serve as an organizational framework for the domain. The second half of CP/EP explores

the application of this perspective to various "players" in the game of literacy--the student, the teacher, and the principal.

The reference to "efficiency" points up another facet of the concept of a curriculum. Efficiency means that the actor is aiming toward some degree of optimization of a system, which entails reflection and strategic planning. Psychologists now speak of meta-cognition, of "thinking about thinking." Indeed, the capacity to pull away from the task at hand--no matter what it may be--and consider it in a more objective and "removed" light may be at the core of schooling. This capacity to reflect and to explicate is not easily come by--it is an "unnatural act," to paraphrase Gough and Hillinger (1980). The contrast between natural and formal ways of thinking has received comment by a number of linguists and anthropologists interested in the effect of literacy on human thought processes (Olson, Torrance, & Hildyard, 1985). I have argued recently (Calfee, in press) that the capacity of the teacher to articulate a domain of knowledge may be the essence of the profession--the key difference between an expert and a teacher.

Finally, a parallel distinction can be drawn between more or less natural styles of learning. As Greeno (1980) has observed, learning has been a stepchild in the era of cognitive psychology, relatively little research has been aimed during the past quarter-century toward the question of how cognitive processes are required. I certainly make no claim to have filled that void. On the other hand, the early work in mathematical learning theory (Atkinson & Calfee, 1965) provides a foundation for distinguishing between learning that occurs in a step-by-step fashion, gradual increments moving slowly toward eventual mastery, and the sudden leap to acquisition of a principle or an insight.

The early research asked "Which is the true learning theory?" Probably the wrong question, since both types of learning and variations can be observed in experiments. More recently I have suggested that the school may be a key factor in determining learning style (Calfee, 1983a). Nature is the "college of hard knocks;" learning comes from repeated experience, takes time, and leads to "intuitive" understandings. In the ideal school setting, according to this analysis, learning comes from "teaching," may occur almost instantaneously, and leads to articulate awareness. Both styles are important to mastery; knowledge and practice are not substitutes. The school provides the youngster with examples of "learning by knowing," and with the strategic awareness of how to allocate time and mental resources to each style (and the various combinations thereof).

The Curriculum of Reading

How do the preceding remarks inform thinking about instruction in reading? The domain must be portrayed, and a simple representation constructed. A language must be conceived to make this representation articulate. Methods must be created to provide both conceptual knowledge and opportunities for practice.

My answer to the preceding requests is found in large part in Calfee and Drum (1986; the HB chapter). What is the domain of reading? My answer is, the contrast between the natural and the formal use of language (also Freedman & Calfee, 1984; Heath, 1983). What simple representation can be constructed? My answer is to follow the lead of the linguists in their analysis of natural (i.e., spoken) language—phonology, semantics, syntax, and discourse. In the case of printed language, the natural-formal contrast leads to a number of distinctions that are grounded in the study of rhetoric (Calfee & Chambliss, in press). What language can be found to explicate the representation? Again, my first response is to turn to the rhetoric for the basic language, though I readily admit that additional work is needed. In particular, we need to move toward the creation of a conceptual framework that highlights reading but engages all the other formal aspects of language usage.

What about methods to provide conceptual knowledge and opportunities for practice? Just another question in the list, but suddenly we have to take the giant step from concept to event, from theory to practice. Three basic elements provide the operationalization of the concept of a curriculum in the daily life of the school—not counting the human elements: materials (often mistaken for the "curriculum"), instructional procedures, and methods of assessment. I will turn next to these pragmatic aspects of curriculum, first the portrayal in "regular" classrooms and then "compensatory" classes.

The Curriculum for "Regular" Students

In this subsection, I want to consider the portrayal of classroom instruction in reading for typical elementary school children in the United States at the present time. The description, a blend of research findings and personal observations, builds upon a framework of (a) the conceptual basis for the curriculum, (b) materials, (c) instructional methods, and (d) assessment techniques.

Conceptual Basis

The apparent purpose of most reading classes, especially those from first through fourth grade, is to teach "skills." These are relatively small "packets" that are distributed throughout the year's work--short-a, au-, fact versus opinion, and so on. If there is a broader conceptual framework, it is difficult to link the detailed skills to it.

Langer (1984) describes this state of affairs, and places it in historical perspective:

> Implicit in [the skills] model was an orientation that treated the purposes guiding the reading or writing activity as essentially irrelevant....Practice activities themselves tended to become separate from the more complete and purposeful activities to which they initially [in turn of century schools] belonged....This version of [the reading] curriculum is based on an industrial metaphor..., and is often accompanied by a fairly complex management plan that controls the sequence of diagnostic testing, provision of appropriate instruction, evaluation, and reteaching. (pp. 107-108)

Elsewhere in the article, Langer presents a wide array of research findings to support these generalizations--in essence, today's reading curriculum is not grounded in a substantive intellectual framework, but in a sequence of activities that are largely divorced from the traditions and purposes that properly undergird literacy in modern society. Langer makes the point that instruction should link activities and purpose; reading lessons should direct students to a meaningful end. I agree, but would also add the need for teacher and student to aim toward a well articulated conception of purpose, activity, and strategy.

As I argue in "Those who can explain, teach" (Calfee, in press), explicitness may well be an essential ingredient in effective education; in the same document, I describe a number of research studies supporting the conclusion that most literacy instruction in today's schools lacks for explicitness. If a conceptual framework does undergird the work of reading teachers, they are hard put to express it.

Materials

Numerous surveys and observational reports document the conclusion that the basal reader and the teacher's manual drive present reading practices (Commission on Reading, 1985, p. 35; Howlett & Weintraub, 1979; inter alia). Analyses of these materials provides a rather dismal prospect. As noted above,

the driving force is "skill." The routine is standard across most series--the typical lesson begins with practice on several unrelated words, round-robin reading, interspersed with scripted questions that assess rote memory for details in the text. Durkin (1978-79) found little time spent on anything that could pass for comprehension (which she admitted found difficult to define) after observing 24 fourth-grade classrooms. After conducting an analysis of the teacher's manuals (Durkin, 1981), she found an explanation; the scripts did not lead the teachers toward comprehension activities.

Analysis of basal readers shows that they are comprised largely of stories or narratives. Expository passages (technical forms of writing) are fairly rare in the basal, though they become the steady diet in the later elementary grades when more time is spent in science and social studies. The content of the stories is variable; some are classics (old or new), others are pedestrian. Seldom is a coherent theme established (e.g., one is unlikely to find a series of stories dealing with the topic of conflict, or "Mark Twain and his contemporaries," or "a flock of fables").

A final note: the materials for reading are totally separate from those for language arts (grammar and usage, by and large), spelling is yet a third set of books and worksheets, and if students have opportunities to write or to "speak," these are either not guided by systematic materials, or else depend on other packages. None of the sets of materials are interrelated; no wonder that elementary teachers are overwhelmed by their task. (An aside--the Japanese teach all of these areas from a single Japanese language text.)

Instructional Procedures

As noted in the previous subsection, direct instruction by the teacher is tightly scripted by the teacher's manuals in most series. The ancillary activities at the end of each lesson provide more freedom, to be sure; in fact, they provide virtually no guidance at all, but teachers seldom have time to spend on the "extras."

Questioning about detail seldom leads to discussion; in fact, the "correct answers" are also listed in the teacher's manual. As Duffy and Roehler (1982) note, the major instructional activity during the reading lesson is to assess youngsters' ability to come up with the appropriate answer. Langer (1984) puts it succinctly, "...there is relatively little thoughtful interaction between teachers and students, between students and students, or between students and the ideas they are reading or writing about" (p. 112).

Instruction tends to focus on the content of the text under consideration. Detailed questions focus on the color of Jane's hair, the number of times Herman asked for a cookie, or the reason that Mary Ann was afraid to enter the dark room. Seldom are teachers or students directed toward the generic processes that can be used to analyze language; seldom do the manuals introduce the technical terms that can support such analysis. Neither are teachers nor students led to think about the structural frameworks that can be used to portray the "big picture" when thinking about words or texts. Examples of both processes and structures are presented in Calfee and Chambliss (in press).

In a research program that my colleagues and I have been pursuing for the past several years, we have found it possible for teachers and students to operate effectively with the abstractions implied in the previous paragraph (Calfee & Henry, 1986). In analyzing a story, for instance, the concepts of character and plot are rather fundamental; these are not generally included among the questions in the basal manual (presumably the answers would be too complex to include in the manual). But teachers can grasp these concepts, and when students are explicitly taught to use them as processes for analysis of text, their ability to express the meaning of a story is improved. In addition, youngsters from the primary grades up begin to write more coherent narratives.

The basic structure of a narrative is straightforward enough; the theory of story grammar (Mandler & Johnson, 1977; Stein & Glenn, 1979) suggests that most stories begin with a setting (time, place, protagonists, the "problem"), proceed through a series of episodes to a climatic point, after which the final resolution is achieved. This basic structure can be highlighted for youngsters in a variety of ways, including "story maps." Again, it is possible to provide teachers with basic knowledge that allows them to adapt the existing materials to include activities that help students comprehend the "big picture," but such activities are seldom to be found in existing programs.

Assessment

How does the classroom teacher know how well a student can read? I have referred elsewhere (Calfee, 1983b) to the "two faces of testing." The notion that the external approaches to assessment that dominate pubic discussion have little relation to the methods employed by teachers to form judgments and make decisions (high or low reading group, request assignment to special education, and so on). Dorr-Bremme and Herman (1983) in a survey of teachers and administrators find empirical evidence of this phenomenon, as has Haertel (1985) in a survey of high school students and teachers.

Group-administered multiple-choice tests, favored by external authorities in their quest for accountability, see little use in the classroom. As Langer (in press) argues, this state of affairs is probably as it should be. These tests are at best an indirect measure of what they purport to assess. At worst, reliance on such instruments for instructional decisions is fraught with hazards; Ravitch worries that results-oriented reformers may have "tied their definition of academic achievement to the most mechanistic measures of accountability.... A flood of worksheets and standardized tests has led to a curriculum top-heavy with skills and barren of cultural content" (Association for Supervision and Curriculum Development, 1986).

What do teachers rely on? The answer to this question is not altogether clear from the existing literature. The question needs clarification—rely on for what? Once students are assigned to a reading group, then the basal tends to make decisions. The teacher may adjust the pace through a given series; students' oral reading fluency appears to be a primary determinant of pace (Allington, 1983). Performance on worksheets provides another source of information about student performance, but I know of no systematic study of this question; it does appear that worksheet output (quantity if not quality) is thought by teachers to serve as an important indicator of performance for parents.

In Summary

The program of reading instruction for "regular students" is, in my opinion, lacking in a number of respects. The materials are inchoate and piecemeal, the instruction is didactic and pedestrian, and the methods of assessment provide little insight into student strengths and weakness beyond a surface level. The fundamental problem is the conceptual base on which contemporary literacy programs are founded; an assembly-line notion built around tacking small packets of skills onto the bodies as they move past.

Most children from middle-class homes do acquire the rudiments of literacy. The NAEP (National Assessment of Educational Progress) findings suggest that the norm may be rudimentary at best—progress in the early grades in low-level skills, poor performance in the later grades on more demanding knowledge, and a quality of writing that is a national tragedy (NAEP, 1985, 1986; Congressional Budget Office, 1986). There must be a way of making more informed use of the resources available in the public school systems to help the typical middle-class youngster become more fully literate....

The Compensatory Curriculum

In this subsection four topics will be sketched: (a) a brief history of the concept of a compensatory program for reading acquisition; (b) an account of the distinctions that set compensatory programs apart from regular programs at the present time; and (c) a description of the prototypical "most effective" consideration of the "most effective" school environment for these children.

History

Several histories of the compensatory education movement probably exist; the account that fell into my hands most quickly is Ed Gordon's (1979) response to the papers in the Resnick-Weaver volumes, Theory and Practice in Early Reading. Gordon's opening comments set a proper context: "The education of large numbers of children from diverse backgrounds and with a variety of personal characteristics can be said to be a problem peculiar to modern societies" (p. 300). The remark might be amplified for the present: The effective education of large numbers of children.... The United States has long been a polyglot, and the presence in our schools of children covering a wide range of social and cultural differences is not new by any means.

The quest for effective education springs from a number of sources. As Gordon notes, the 1960s saw an emphasis on equity; this concept is a slippery one (Calfee, 1983c). The basic conflict is between a definition grounded in equality of opportunity versus the requirement of equal outcomes. Moreover, the goal can either be for the individual (at some non-trivial minimum) or for designated groups (minorities, the poor, boys or girls).

In the 1960s, both the Office of Educational Opportunity and the Office of Education (USOE) sponsored a number of school programs designed to reduce the achievement gap between rich and poor students, between minority and majority. These programs included new methods and the use of technology, nursery-school and daycare programs, television aimed at the home, anti-dropout programs, and compensatory education programs.

The largest Federal program has been that which provides direct support of public schools, first as Title I of the Elementary and Secondary Educational Act of 1965, later as Chapter 1 of the Educational Consolidation and Improvement Act of 1981. This funding, designed to "provide financial assistance to local education agencies serving areas with high concentrations of children from low income families to expand

and improve their educational programs" (Kirst & Jung, 1980, p. 4), in 1982 allocated almost $3 billion to 13,000 school districts throughout the United States (Stonehill & Groves, 1983).

Compensatory education is based on a deficit model. Additional resources are targeted to the student, in order to make up for a lack of some sort. What can be expected as a result of this allocation? Gordon gives an answer: "Society's response to the problem of the education of the poor has reflected one of two views of human nature.... [A] more tractile or plastic view of human nature...suggests that intervention can result in a changed quality of function...the opposing, and more popular view...is that little can be done with the have-nots in society... This view leads to missionary-type efforts designed to make the doer feel better..." (p. 307).

The missionary effort need not be quite so pessimistic. Gordon proposes an alternative later in his chapter; the reading deficit in disadvantaged students can be described in developmental language. Reading comprises a series of stages (Chall, 1983). During the early stages the major tasks are low-level skills, predominately decoding (phonics). The logical conclusion is to build compensatory programs around the principles of "a slower presentation rate, involving a good bit of repetition, and [with] generally lower standards and goals than other programs (p. 300)." I do not mean to imply that Gordon supports this argument, only that he lays it out as the foundation for many programs. As he notes, "the discovery of differences between two distinct populations may not enable us to specify the nature of the learning problems [and remedies?] involved" (p. 308).

Another dimension to the debate, which appears only rarely, is the distinction between starting level and learning rate. Disregarding for the moment the question of who or what is the cause of the gap between groups of students, is the difference best characterized as a gap in the starting level (ability on entry to school, the focus of Head Start, Sesame Street, and the like), or a difference in learning rates, or both. I will not attempt to define or resolve this matter here, but simply identify it as a significant task for educational measurement in the future (Rogosa, Williamson, & Willett, in press).

Typical Programs

What are compensatory programs like today? A few years ago, Priscilla Drum and I summarized the results of our survey of the area as follows:

> What is the profile of the "typical" compensatory reading program of the 1970s?.... Compensatory reading funds supported aides and extra materials, and, to an increasing extent, reading specialists. The latter gave intensive instruction to small groups. Aides decreased effective class size and increased instructional time--a cost effectiveness analysis of these alternative resources would seem helpful. Materials increase the available variety and make it more likely that if one approach doesn't work for the student, an alternative is readily available. Otherwise, compensatory programs resemble "regular" reading instruction, for the most part. Funds increase the amount of instruction, without necessarily changing the manner... (Drum & Calfee, 1979, pp. 184-185)

The data for the ETS survey of compensatory reading programs (Calfee & Drum, 1979) was collected in 1972-73. The profile was consistent with earlier studies (e.g., Austin & Morrison, 1963) as well as somewhat later data (NIE, 1977a). Changes in the present situation appear relatively minor: pullout programs are probably more commonplace, aides are typical, but reading specialists play a greater role.

The review by Allington (1986) paints a picture of compensatory reading programs for the mid-1980s that is consistent with the preceding conclusions.

> Of students served by Title I programs, 85 percent receive instruction in reading or language arts for between two and one-half (Allington, 1980b) and three and one-half (NIE, 1977b) hours per week, the vast majority in pullout compensatory instruction classes (p. 261). The pullout structure produces a more easily followed "audit trail" (Shulman, 1983), [enabling] local and state education personnel to verify compliance with the "supplement but not supplant" regulation with ease. The pullout program structure was not motivated by pedagogical concerns, adequate empirical evidence, or learning theory (p. 263).
>
> A result of the separation is the fragmentation of the school experience for Title I students (Kaestle & Smith, 1982)....Few remedial students received instruction that supplemented their core classroom instruction, but were taught by classroom and remedial teachers who generally expressed different beliefs about student needs and offered different objectives as targets for instruction (Johnston, Allington, & Afflerbach, 1985).

> Half of the teachers interviewed [by Johnston, Allington, & Afflerbach, 1985] were unable to identify the basal series used in any given remedial student's classroom, and more than two-thirds could not identify the specific reader or level of textbook the student was placed in. Only one in five classroom teachers could identify the reading material a remedial student from his or her classroom was using in the remedial setting (p. 263-264).
>
> Data...indicate that additional instructional time is usually not available [as a result of compensatory instruction through pullout programs]. The most damaging evidence is provided by Lignon and Doss (1980) [who found that] instructional time provided by the regular program is supplanted by the instructional time provided the Title I program...Vanecko and Ames (1980) found that in nine of the thirteen districts that they studied students in Title I schools actually received less reading and language arts instruction than students in non-Title I schools (an average of about seven minutes a day less)...Kimbrough and Hill (1981) found that federally funded compensatory education programs tended to replace core classroom instruction, especially in reading (p. 266-267). [In addition], nearly one-third of the scheduled time was spent in "set up" activities before the beginning of any instructional activity. That is, from the time one previous group was released until the next group began receiving instruction, nearly ten minutes of the thirty minute period passed (Allington, 1984, p. 268).

A similar pattern of findings was reported by Kimbrough and Hall (1981) in their (admittedly limited) sample of 24 elementary schools in 8 districts across the nation. The Rand researchers examined "worst case" scenarios in two areas: interference and cross-subsidy. Their conclusions, even if not altogether typical, are disturbing.

They found that Federal programs (primarily compensatory reading programs) interfered with the basic curriculum of reading in several ways: (a) core classroom instruction was interrupted by pullout activities; (b) core instruction was replaced by remedial activities; (c) the teaching methods clashed between programs; (d) administrative burdens were increased; (e) staff conflicts ensued; and (f) students were segregated for large amounts of time. Cross-subsidization resulted from children who were eligible for multiple categorical programs; almost anything could happen under these conditions.

Perhaps as a consequence of the apparently chaotic management of compensatory reading, the effects of such programs have been rather disappointing when gauged against student achievement. Carter (1984), Cooley (1981), Kaestle and Smith (1982), and Levin (1977) are among those who have remarked about the disappointing effect of compensatory programs on standardized achievement test scores.

Another indication is the degree of changes in the performance of minority youngsters over the past few decades. Because of the link between minority status and socioeconomic level in this country, compensatory programs are more likely to serve minority than majority youngsters. The relation is not one-to-one, to be sure, but it would be reasonable to expect that compensatory programs would serve to alleviate the gap in performance between majority and minority students. Another key is to look at trends in performance in disadvantaged urban communities.

The picture varies slightly depending on the data source one examines, but some generalizations seem trustworthy. First, the gap between majority and minority performance is still substantial, and a similar comment holds for the difference between disadvantaged urban areas and the nation as a whole. Second, the gaps have grown smaller in the last decade or so. Third, the reduction is most marked for students in the early school years, and less so for high school students.

For instance, in the NAEP (1984) Reading Report Card, which resents trends over four national assessments from 1971 to 1984, Black and Hispanic students judged to read at an "intermediate" level (roughly the performance expected of a typical junior high student) shows a steady increase over each assessment to the next, and for all three age groups (9-, 13- and 17-years of age), increases that range from 2 to 10 percent (in one instance more than 20 percent). Majority students also show an increasing trend, but only about 5 percent. By age 17, however, 90 percent of majority students have achieved this level, whereas only about 60 percent of minority students have attained it. It its analysis of NAEP data, the Congressional Budget Office (1986, p. 81) notes that the difference between the national average and the performance in disadvantaged urban districts was -29 points in 1970 for 9-year olds, and only -19 points in the 1983 assessment. By contrast, the same differences were -25 and -22 points for 17-year olds in 1970 and 1983, respectively.

Multiple-choice tests of reading comprehension do not necessarily assess higher-level skills, no matter the labeled "objective." Writing puts greater demands on the students expressive ability. The NAEP (1986) report on writing is not encouraging in this regard. The draft report that I have in

hand lacks the "data appendix," and the analyses do not highlight some comparisons most relevant to my purposes. Nonetheless, the available information is supportive of the earlier conclusions: the proportion of youngsters at any age who can meet a minimal criterion of adequate writing is greater for majority than for minority youngsters, and there are no clear trends from 1974 to 1984 indicating improved performance by any group. The gap between majority and minority ranges between 15-25 points over years and ages.

Interpretation of these aggregate patterns is difficult, of course. The implication that leaps to mind is that funding allocated to compensatory programs has not caused any concomitant improvement in performance over the long haul--small but unsustainable effects at best. What is needed for secure causal conclusions is an experiment, which will provide the basis for deciding how to aid children from disadvantaged backgrounds. Such an experiment has been conducted--Follow Through--with results that appear clearcut at first reading, but are less convincing on closer examination.

Effective Programs

Give preschoolers from disadvantaged backgrounds a Head Start and the "problem" will be solved; provide supplementary funding to support these students in the public schools and the "problem" will be solved; the easy answers of the early 1960s did not appear to work, and so the Follow Through program was proposed. An extension of Rivlin's (1971) conception of "planned variation," the idea was to carry out a sustained and detailed investigation of the relative effects on student achievement of a number of distinctive approaches to meeting the school needs of poor children. "[Follow Through] survived as one of the last initiatives of the War on Poverty because the planners described it as an 'experimental program' that would aid in identifying educational approaches that 'work best' with low-income children and their families" (Rhine, 1981a, p. 298).

I will assume that the reader is somewhat familiar with the Follow Through experiment. A variety of different instructional approaches were implemented in a nationwide sample of schools. The sponsors of the approaches worked with the local sites to put the programs into place. A standard model was used for evaluation, including methods of classroom observation and student assessment; the former emphasized classroom management and the latter relied on standardized achievement tests.

The results were straightforward: "The highest mean scores on the MAT [Metropolitan Achievement Tests] were attained by students enrolled in two models, the Direct

Instruction Model and the Behavior Analysis Model" (Rhine, 1981a, p. 302). The positive effects of these programs, especially the Direct Instruction (DI) model, were so consistent and striking as to be virtually unarguable; for primary school students in many sites, including disadvantaged urban neighborhoods, performance on standardized tests far exceeded expectations of control groups, as well as the other "experimental" programs. Rhine (1981a, p. 302) notes some qualifications: (a) the DI sponsors may have been more aggressive and effective in implementing the program; (b) the program may have been easier for teachers to implement; (c) the program goals may have been a closer match to the outcome measures; and (d) practice in the classroom may have reinforced skills paralleling to the outcome measures.

Many educated people stand in respect of the experimental method. It has served us well in the natural sciences. Social experiments pose different challenges, as noted by several comments in Rhine's (1981a) analysis:

> The strong emphasis on ethnic minority representation and parent participation in Follow Through often appeared to transform the project into a lightning rod that attracted flashes of energy generated by expressions of discontent and demands for social justice that surged through the larger society. (p. 293)
>
> There is general agreement that results of the national evaluation would have been more meaningful if goals of the Follow Through Project, and of many participating models, had been stated with greater clarity....(p. 298) The interest [of USOE Follow Through administrators] in approximating a truly experimental approach in the project clearly was subordinate to their primary goal, which was to keep alive the possibility that eventually Follow Through could be converted into a major national service project on the scale of Head Start. (p. 300)
>
> Organizing and administrating social intervention studies usually require much attention to building and maintaining effective coalitions of stakeholders whose interest often are diverse and competitive. In such circumstances there may be frequent conflicts between methodological requirements and administrative requirements in decision making.... The challenge for social scientists is to learn how to use their expertise and professional skills with as much objectivity as possible in politicized environments. (p. 301)

Objectivity depends on the eye of the beholder, on the lens through which the object is observed. The Direct Instruction model stands at some distance from the vision of schooling in literacy that I have sketched earlier in this paper. The teacher in a DI program is very closely scripted; little or no deviation is permitted from the prescribed routine. The primary emphasis is on the acquisition of decoding and vocabulary skills. An objective-based construal of curriculum seems quite agreeable to the DI philosophy. And students perform much better than comparison groups. Documentation of these points can be gained from the original Follow Through reports (Rhine, 1981b), and from a wide array of articles by the DI sponsors (e.g., Becker, 1977; Becker, Englemann, Canine, & Rhine, 1981; Meyer, Gersten, & Gutkin, 1983).

Without pretending to be unbiased (my theoretical orientation leads me to question the precepts of this approach to schooling), I will nonetheless present a reading of "follow-up" data on the DI model. Becker and Gersten (1982) provide the data base for this analysis in their analysis of A Follow-up of Follow Through: The Later Effects of the Direct Instruction Model on Children in Fifth and Sixth Grades.

The report covers some of the youngsters who were included in the original Follow Through experiment. Only a handful of the original sites were included in the follow-up--East St. Louis; Smithville, Tennessee; Uvalde, Texas; Dayton, Ohio; and Tupelo, Mississippi. Purists might question the representativeness of these sites; I do not see this issue as critical. Mobility and variation in test instruments reflect the reality of educational research; others wiser than I must find the solution to the practical realities of school assessment.

What do the data show? Becker and Gersten give the following summary: "Results indicated consistently strong, significant effects in WRAT reading scores (decoding), consistent effects in math problem solving and spelling, and moderate effects in most other academic domains. Students appeared to retain the knowledge and problem-solving skills they had mastered in the primary grades. However, without a continuing program, most students demonstrated losses when compared to the standardization sample of the achievement tests" (p. 75).

The Becker-Gersten article is brief but meaty, 18 pages, including nine tables/figures and three pages of references, which means not a lot of prose. Moreover, the authors argue against pooling data over sites for reasons that are understandable. Despite the cautions of the authors, but in the interest of gaining a "picture" for my simple mind, I proceeded to aggregate the data.

The results of my analysis (Figure IV-3) come from an integration of information from all of the tables and the figure in the Becker-Gersten report. Following the authors' assignment, I assume that the WRAT (Wide Range Achievement Test) measures "decoding" or basic phonics, which is an emphasis of the DI program. I assume that performance on the MAT (Metropolitan Achievement Test) is more closely associated with development in vocabulary and comprehension. I have aggregated performance over sites, using both weighted and unweighted means (the differences were trivial). I have made the assumption that the clientele of compensatory programs, in the absence of effective intervention, will average around the 20th percentile level on standardized achievement tests.

My interpretation of the Becker-Gersten findings, based on all of these assumptions, is a follows: First, the DI program does improve the performance of children from disadvantaged backgrounds on tests that assess the "skill" being taught: decoding. Second, the program is not effective in sustaining the advantage on that skill; decoding or phonics may seem a low-level matter, but an argument can be made that understanding the English spelling-sound system is in fact a higher-level concept (Venezky, 1970). Third, and more problematic given the data available, the program does not appear to promote transfer to the other areas of literacy (vocabulary development and comprehension) as measured by the instruments. I do not mean to say that the MAT is a valid measure of vocabulary or comprehension, but that the comprehension and problem-solving capacity tapped by this battery is considerably greater than for the WRAT.

In a nutshell, DI teaches what it teaches--relatively low-level skills. These are not transferable over time to increasing demands, nor do they transfer to the higher-level knowledge and skills that comprise literacy (as measured by multiple choice tests). One might conclude with Becker and Gersten that "more of the same" is needed; if the goal of schooling is independent growth, however, then this picture of the sixth grader from a DI program in the primary grades is not too encouraging.

Effective Schools

Another major entry on the scene for improving the reading ability of children from poor homes is the "Effective Schools" movement. Springing from several independent sources in the early 1970s (Purkey & Smith, 1982; Clark, Lotto, & Astuto, 1984), the main thrust of the work is the finding that some schools (mainly at the elementary level) serving low-income neighborhoods succeeded in promoting student achievement far above predictions. The methods were generally to look for outliers, and then examine the more effective schools for

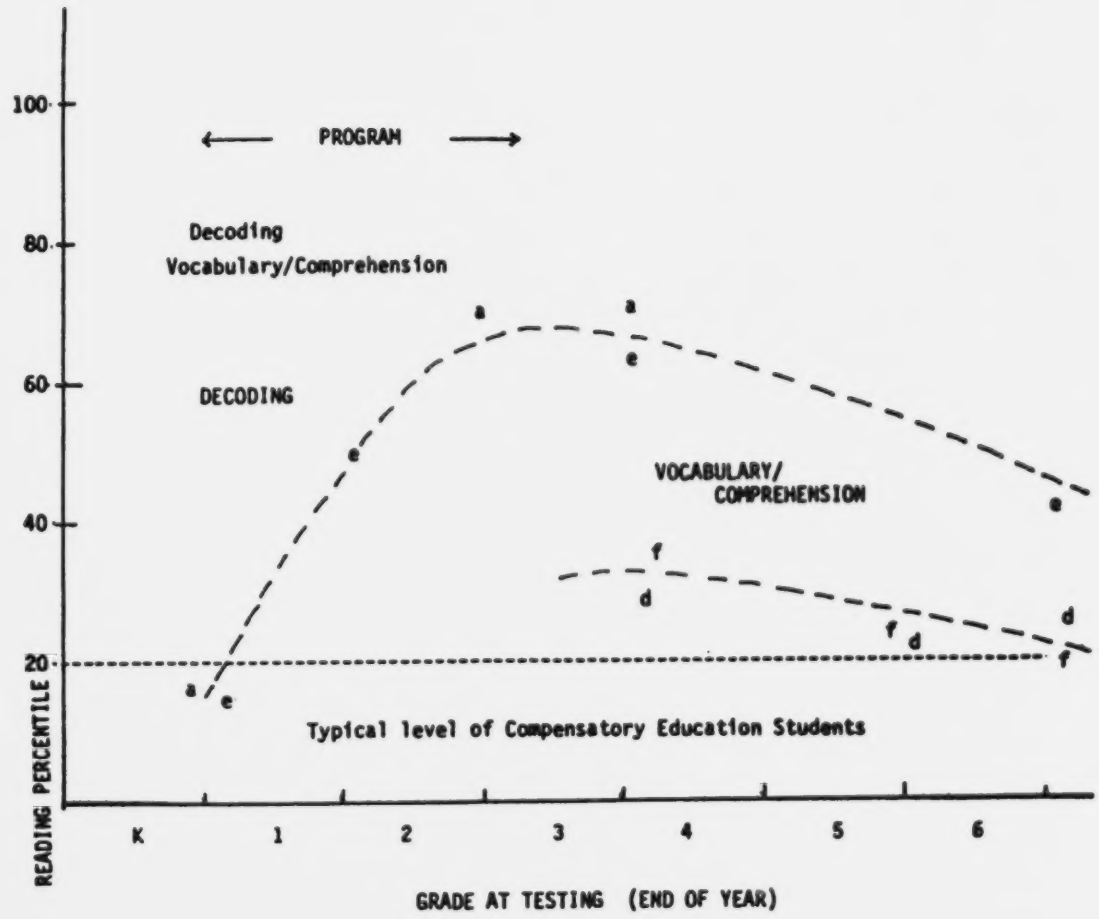

Figure IV-3. Aggregated Data from Becker-Gersten

traits that distinguish them from their less successful counterparts.

Purkey and Smith (1982), Clark et al. (1984), MacKenzie (1983), and Cuban (1983), inter alia, have provided extensive and detailed analyses of this literature, and I will not reiterate their work here. The critical features generally include a stress on leadership, a concentration on academic objectives, high expectations for all students, and continuous monitoring of performance. The operationalization of these features varies from one study to another, but the general character of the items on the list makes sense to me. Virtually all studies rely on multiple choice tests as the primary indicator of effectiveness--a weak reed, in my opinion.

The studies are subject to the problem that plagues most correlational work: which are the critical causal variables, and how can one manipulate these to effect change? Of the several efforts to improve schools based on this model, at least those with which I am familiar, the barriers to successful implementation have proven rather substantial. Clark et al. (1984) put the matter thusly:

> Why effective schools exist, are sustained, fail to emerge, or fail over time is unclear. Exogenous shocks to, and support mechanisms for, schools and systems undoubtedly assist in the creation of more effective schools. The key, however, lies in the people who populate particular schools at particular times, and their interaction within these organizations. The search for excellence in schools is the search for excellence in people. (p. 50)

The difficulty at present is that we seem constrained to a "search for excellence." Instead, we should aim to create it. The needs for human capital and the goals of equity suggest that a primary task for education in the United States is the development of effective mechanisms for fostering excellence in the people who populate our schools, regardless of the backgrounds from which they come (Gardner, 1984).

In Summary

After a quarter-century of sustained and earnest effort by school people, significant allocation of Federal resources, and substantial amounts of educational research on the matter, the correlation between socioeconomic status and reading achievement remains a basic reality in American schools. One reaction to this state of affairs is acceptance--the relation is

something that we have to live with, even though the consequences may be troublesome for whatever reason.

In my own thinking, I am not convinced that the correlation needs to be viewed as a constant. Present programs of curriculum and instruction appear to be significantly off the mark when gauged against the broader reaches of literacy as I have described the concept. Youngsters whose parents are better educated and are able to spend time and other resources to promote growth in literacy—such youngsters are at a multiple advantage. For them, the school serves to multiply pre-existing differences.

This state of affairs is reinforced by a number of forces: curriculum materials, textbook publishers, teacher and administrator training programs, state and district guidelines, testing programs, and the inertia of practices and conventions that have been in place for decades. The situation need not be as it is, but change will not come easily.

I am inclined to believe that significant change is possible, but that it most likely will spring from activity at the local elementary school site, the consequence of professionalization of the school staff, teachers, and administrators. Federal and state policy can be redesigned to promote this goal; directing resources (and accountability) to the school site rather than to the student would be a major advance. I would urge that any such modification be carried out in stages; try several variations in a limited number of settings and monitor the results. Rivlin's (1971) concept of planned variation seems as sound today as it did more than a decade ago.

Another recommendation is the re-establishment of a strong Federal and state role in evaluation and monitoring. Local educational agencies tend not to be reflective; they have too many things to do to stop and think. They experiment and collect data only in response to mandates. Until the culture of the school changes, external agencies will be the primary vehicle for promoting systematic school improvement, and for establishing networks to share information about such efforts.

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